

The Impact of the 2026 US-Iran Energy Crisis on Ethiopia's Macro-Financial Stability: Evidence from Jimma Zone Gomma Woreda

Tamiru Beshada

tamiru.beshada@ju.edu.et

Jimma University

Research Article

Keywords: Macro-financial stability, Energy price shock, Gomma Woreda, Geopolitical crisis, Public policy

Posted Date: September 4th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10677027/v1>

License: © ⓘ This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Additional Declarations: No competing interests reported.

Abstract

The interplay between geopolitical conflicts and energy markets presents severe macro-financial risks to non-oil producing developing nations. The 2026 US-Iran energy crisis represents a global geopolitical shock with substantial spillover effects on imported fuel-dependent economies such as Ethiopia. This study examined the impact of the 2026 US-Iran energy crisis on Ethiopia's macro-financial stability, focusing on empirical evidence from Gomma Woreda in Jimma Zone. A mixed-methods research design was implemented. Primary quantitative and qualitative data were collected from a sample of 384 respondents, including local households, business owners, and government officials across Gomma Woreda. Descriptive and inferential statistical analyses were performed using SPSS version 25 outputs. Findings demonstrate that fuel price hikes represent the main direct transmission channel of external shocks ($M = 4.424$). Physical supply disruptions and queue bottlenecks were strongly anticipated ($M = 4.140$). While public awareness ($M = 3.714$) and demand for government intervention ($M = 4.114$) are high, actual baseline community preparedness remains low ($M = 2.784$). Global energy crises exert multi-dimensional systemic threats to localized economic development, real incomes, and business survival. Mitigating these macro-financial risks requires immediate social safety nets paired with long-term renewable energy diversification, public-private partnerships, and proactive local administrative action.

1. Introduction

The interplay between geopolitical dynamics and energy markets is a critical area of study, particularly as the world grapples with the implications of conflicts that disrupt global supply chains. Iran, possessing one of the largest oil reserves in the world, plays a crucial role in global energy supply; any disruption in its energy exports triggers substantial fluctuations in global oil prices and availability (Katz, 2021). Ethiopia, while geographically distant from US-Iran tensions, is intricately linked to global energy markets. The country has experienced economic growth driven by infrastructure development and industrialization, yet it remains highly dependent on imported fuel for energy needs, making it vulnerable to external price and supply shocks (World Bank, 2020).

In Jimma Zone, specifically Gomma Woreda, the local economy is predominantly agrarian, with agriculture serving as the backbone of livelihoods. However, local agricultural productivity, commercial coffee processing, and transport logistics rely heavily on stable energy supplies (Ethiopian Economic Association, 2022). Consequently, fluctuations in energy pricing and availability can have profound effects on household incomes, business operations, and macro-financial stability. Despite these vulnerabilities, there is limited empirical research examining how external geopolitical shocks translate into localized socio-economic risks within rural Ethiopian woredas.

The main objective of this study was to examine the impact of the 2026 US-Iran energy crisis on Ethiopia's macro-financial stability, using empirical evidence from Gomma Woreda in Jimma Zone. Specifically, the study sought to:

Assess public awareness and local perceptions regarding the transmission of international geopolitical shocks to domestic markets.

Evaluate the anticipated effects of fuel price hikes and physical supply shortages on household incomes and business operations.

Measure community preparedness levels and behavioral adaptation mechanisms.

Identify effective fiscal, monetary, and local policy interventions to safeguard macro-financial stability.

2. Literature Review

2.1. Theoretical Framework

Energy price shocks are major drivers of macroeconomic instability, particularly in developing economies reliant on imported petroleum. According to the Cost-Push Inflation Theory, rising energy prices elevate intermediate production and transportation costs for commercial enterprises, triggering broader inflationary pressures (Mankiw, 2014). The Real Income Theory suggests that when inflation accelerates without proportional nominal wage adjustments, household real purchasing power contracts significantly (Friedman, 1968).

At the micro-level, the Protection Motivation Theory posits that individual and community preparedness depends on threat perception and coping self-efficacy (Rogers, 1983). Furthermore, the Behavioral Economics perspective highlights that economic actors rely on heuristics when facing market uncertainty, often adjusting savings and consumption patterns in response to geopolitical news flow (Kahneman and Tversky, 1979). From an institutional perspective, the Macroprudential Regulation Framework stresses the necessity of countercyclical fiscal policies, monetary stabilization, and energy diversification to buffer financial systems against external shocks (Borio, 2011; Blanchard and Leigh, 2013).

2.2. Empirical Review

Empirical studies confirm that global oil shocks rapidly transmit to developing economies. Kilian (2009) demonstrated that oil supply disruptions drive consumer inflation, while Baumeister and Kilian (2016) showed that geopolitical tensions induce severe market volatility. In Ethiopia, Tadesse et al. (2020) found that energy price volatility directly reduces household purchasing power, and Alemayehu et al. (2022) observed that local markets experience immediate price surges during international fuel supply pinches. Furthermore, Mekonnen (2021) noted that small and medium enterprises (SMEs) in rural Ethiopia face extreme operational strain when energy prices rise. Studies by Pahl-Wostl et al. (2010) and Berhanu Kedir (2018) highlighted that community risk perceptions play a key role in shaping local economic resilience.

3. Materials and Methods

3.1. Description of the Study Area

The study was conducted in Gomma Woreda, situated in Jimma Zone of the Oromia Region, Southwestern Ethiopia. Gomma Woreda is a major agricultural hub renowned for coffee production, agro-processing, and smallholder farming. The area relies on motor transport and diesel-powered processing machinery, rendering its local economy highly sensitive to fuel supply shocks.

3.2. Target Population and Sampling Design

The target population comprised residents, micro- and small-enterprise operators, coffee processor owners, and local government officials across Gomma Woreda. A mixed-methods research design was adopted. For the quantitative survey, a stratified random sampling technique was applied across socio-economic strata. Sample size calculation was based on Cochran's formula, yielding a sample of 384 respondents. For qualitative data, purposive sampling was used to select key informants for semi-structured interviews and focus group discussions.

3.3. Data Collection and Statistical Analysis

Primary data were collected via structured questionnaires administered to the 384 respondents. The instrument covered socio-economic indicators, perceived price/supply impacts, household income effects, business operations, awareness, preparedness, and policy expectations. Quantitative data were processed using SPSS version 25 software. Descriptive statistics, including means (\$M\$) and standard deviations (\$SD\$), were calculated to measure variable distributions.

4. Results

4.1. Awareness and Perceptions of Geopolitical Events

Table 4.1: Descriptive Statistics for Awareness and Understanding of Geopolitical Events (N = 384)

Table 4.1: Descriptive Statistics for Awareness of the US-Iran Energy Crisis (N=384)

Indicator	N	Min	Max	Mean	Std. Deviation
I am aware of the potential US-Iran energy crisis expected in 2026	384	1	5	3.77	1.017
I believe that the US-Iran energy crisis will have implications for global oil prices	384	1	5	3.73	1.014
I feel informed about how geopolitical tensions can affect petroleum availability in Ethiopia	384	1	5	3.70	1.018
Composite Score	384			3.733	

Source: SPSS version 25 outputs

Table 4.1: Descriptive Statistics for Awareness of the US-Iran Energy Crisis (N = 384)

Source: SPSS version 25 outputs

Respondents demonstrated a consistent, moderate-to-high level of public awareness (M=3.714 and M=3.733). Respondents showed a strong understanding that international geopolitical disruptions drive domestic fuel prices (M=3.78,SD=0.995) and confirmed awareness of the specific 2026 US-Iran energy crisis (M=3.77,SD=1.017).

4.2. Impact on Petroleum Product Pricing and Availability

Tables 4.2 and 4.3 depict the perceived transmission channels regarding petroleum product pricing and physical availability.

Table 4.2: Descriptive Statistics for Perceived Impact on Price of Petroleum Products (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
I expect that the price of petroleum products in Ethiopia will increase due to the US-Iran energy crisis	384	1	5	4.43	0.686
I believe that the increase in petroleum prices will significantly affect my household budget	384	1	5	4.49	0.693
I think that the price of diesel and gasoline will be more affected than other petroleum products during the crisis	384	1	5	4.37	0.794
I anticipate that local businesses will raise their prices due to increased transportation costs from rising petroleum prices	384	1	5	4.42	0.775
I believe that government interventions can mitigate price increases during the energy crisis	384	1	5	4.41	0.763
Composite Score	384			4.424	

Source: SPSS version 25 outputs

Table 4.3: Descriptive Statistics for Perceived Impact on Availability of Petroleum Products (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
I expect that the availability of petroleum products in Gomma Woreda will decrease due to the US-Iran energy crisis	384	1	5	4.17	0.851
I believe that there will be shortages of certain petroleum products (e.g. gasoline, diesel) in my community during the crisis	384	1	5	4.13	0.895
I think that long queues at fuel stations will become common in Gomma Woreda if the energy crisis occurs	384	1	5	4.14	0.952
I feel that local authorities are adequately prepared to handle potential supply disruptions caused by the energy crisis	384	1	5	4.12	0.975
Composite Score	384			4.140	

Source: SPSS version 25 outputs

The composite mean for petroleum pricing ($M = 4.424$) was the highest recorded among all survey dimensions. Respondents overwhelmingly reported that fuel price increases strain household budgets ($M = 4.49$, $SD = 0.693$) and spark transport-driven price hikes across local markets ($M = 4.42$, $SD = 0.775$). Physical supply constraints were also strongly anticipated ($M = 4.140$), with high expectations of fuel shortages ($M = 4.13$) and station queues ($M = 4.14$).

4.3. Microeconomic Impacts: Households and Businesses

Tables 4.4, 4.5, and 4.6 highlight microeconomic impacts on households, enterprise operations, and overall economic performance.

Table 4.4: Descriptive Statistics for Impact on Household Incomes ($N = 384$)

Indicator	N	Min	Max	Mean	Std. Deviation
I believe that fluctuations in energy prices due to the US-Iran crisis will negatively impact my household income	384	1	5	4.17	0.872
I expect that rising energy prices will lead to increased costs for essential goods and services in my household	384	1	5	4.11	0.874
I feel that my household will have to reduce spending on non-essential items if energy prices increase significantly	384	1	5	4.16	0.904
I believe that families in Gomma Woreda will struggle to meet their basic needs due to higher energy costs	384	1	5	4.08	0.930
I anticipate that fluctuations in energy prices will affect my ability to save money for future needs	384	1	5	4.11	0.914
Composite Score	384			4.126	

Source: SPSS version 25 outputs

Table 4.5: Descriptive Statistics for Impact on Business Operations (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
I believe that businesses in Gomma Woreda will face increased operational costs due to rising energy prices	384	1	5	4.12	0.925
I expect that small businesses will struggle to maintain profitability during periods of high energy prices	384	1	5	4.09	0.920
I feel that businesses will pass on increased energy costs to consumers through higher prices for goods and services	384	1	5	4.08	0.997
I believe that some businesses may be forced to reduce their workforce due to increased energy expenses	384	1	5	4.17	0.823
I think that businesses will seek alternative energy sources in response to fluctuations in energy prices	384	1	5	4.09	0.898
Composite Score	384			4.110	

Source: SPSS version 25 outputs

Table 4.6: Descriptive Statistics for Overall Economic Impact (N=384)

Indicator	N	Min	Max	Mean	Std. Deviation
I believe that overall economic conditions in Gomma Woreda will deteriorate if energy prices fluctuate significantly	384	1	5	4.14	0.938
I expect that community investments and development projects will be adversely affected by rising energy costs	384	1	5	4.18	0.888
I feel that the local government should implement measures to protect households and businesses	384	1	5	4.05	0.971
I believe that public awareness campaigns about energy price fluctuations are necessary	384	1	5	4.07	0.993
Overall, I think that the anticipated effects will significantly impact both household incomes and business operations	384	1	5	4.15	0.903
Composite Score	384			4.118	

Source: SPSS version 25 output

Results confirm severe income erosion ($M = 4.126$). Energy shocks diminish household net disposable income ($M = 4.17$) and curtail non-essential spending ($M = 4.16$). For enterprises ($M = 4.110\$$), surging operating expenses raise the risk of labor retrenchment ($M = 4.17$, $SD = 0.823$). At the woreda level ($M = 4.118$), energy cost hikes threaten local development projects ($M = 4.18$, $SD = 0.888$).

4.4. Community Preparedness and Economic Adaptation

Tables 4.7 and 4.8 present empirical evidence on baseline preparedness and behavioral adaptation.

Table 4.7: Descriptive Statistics for Community Preparedness ($N = 384$)

Indicator	N	Min	Max	Mean	Std. Deviation
My community is prepared to respond to economic challenges posed by geopolitical events	384	1	5	2.77	1.268
I believe that residents of Gomma Woreda actively participate in planning for potential economic disruptions	384	1	5	2.81	1.250
Local authorities provide adequate resources and information to help the community prepare	384	1	5	2.77	1.199
I feel confident in my ability to adapt my personal budget in response to rising energy costs	384	1	5	2.82	1.211
The community has established networks (e.g. cooperatives) to help each other during economic crises	384	1	5	2.75	1.206
Composite Score	384			2.784	

Source: SPSS version 25 outputs

Table 4.8: Descriptive Statistics for Economic Behavior (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
I change my spending habits based on news about geopolitical events affecting energy prices	384	1	5	3.67	1.043
I prioritize purchasing local products over imported ones during times of geopolitical uncertainty	384	1	5	3.68	1.071
I believe that my community's economic behavior is influenced by concerns about future geopolitical events	384	1	5	3.70	1.128
I am more likely to save money or reduce spending when I hear about potential energy crises	384	1	5	3.76	1.008
My community tends to invest in alternative energy solutions when geopolitical tensions rise	384	1	5	3.65	1.075
Composite Score	384			3.692	

Source: SPSS version 25 outputs

A significant gap exists between awareness and actual readiness. Community preparedness scored below neutral (M = 2.784), citing limited financial flexibility (M = 2.82) and inadequate local resource buffers (M = 2.77). Despite low institutional preparedness, individual economic behaviors adapt actively

(M = 3.692), driven by precautionary saving (M = 3.76, SD = 1.008) and substitution toward local goods (M = 3.68).

4.5. Policy Responses, Institutional Trust, and Collaborative Strategies

Tables 4.9, 4.10, 4.11, 4.12, 4.13, and 4.14 document public evaluations of policy interventions and governance.

Table 4.9: Descriptive Statistics for Financial Stability Measures (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
Monetary policies aimed at controlling inflation during the energy crisis	384	1	5	4.14	0.887
Strengthen local financial institutions to provide credit for small businesses	384	1	5	4.12	0.942
Establish price controls on essential goods to prevent exploitative pricing	384	1	5	4.11	0.878
Focus on diversifying the local economy to reduce dependence on energy markets	384	1	5	4.10	0.904

Source: SPSS version 25 outputs

Indicator	N	Min	Max	Mean	Std. Deviation
Subsidies for essential goods to stabilize prices during the energy crisis	384	1	5	4.13	0.909
Local authorities should establish emergency funds to support vulnerable households	384	1	5	4.10	0.925
Promote energy efficiency programs to reduce overall energy consumption	384	1	5	4.08	0.973
Increased investment in renewable energy sources to lessen dependence	384	1	5	4.13	0.977
Tax incentives for businesses that invest in alternative energy solutions	384	1	5	4.13	0.960
Composite Score	384			4.114	

Table 4.10: Descriptive Statistics for Government Policies and Interventions (N = 384)

Source: SPSS version 25 outputs

Table 4.11: Descriptive Statistics for Overall Perceptions (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
Local perceptions of geopolitical events are crucial for community resilience	384	1	5	4.13	0.943
Community's understanding contributes positively to collective preparedness	384	1	5	4.05	0.963
More education about global issues would improve community readiness	384	1	5	4.14	0.908
Trust that local leaders are responsive to the concerns of residents	384	1	5	2.89	1.178
Composite Score	384			3.803	

Source: SPSS version 25 outputs

Table 4.12: Descriptive Statistics for Government Policy Interventions (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
Price controls on essential goods to mitigate rising energy costs	384	1	5	4.09	0.911
Subsidies for energy costs to stabilize household finances	384	1	5	4.08	0.979
Invest in renewable energy sources to reduce dependency on imported energy	384	1	5	4.14	0.911
Enhance public transportation systems to reduce individual energy consumption	384	1	5	4.16	0.898
Provide financial assistance to small businesses affected by rising energy prices	384	1	5	4.09	0.930
Composite Score	384			4.112	

Source: SPSS version 25 outputs

Table 4.13: Descriptive Statistics for Local Authority Actions (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
Conduct community awareness programs about energy conservation	384	1	5	3.68	1.068
Facilitate access to alternative energy sources, such as solar power	384	1	5	3.71	1.031
Strengthen partnerships with NGOs to support vulnerable households	384	1	5	3.72	1.037
Implement community-based initiatives to promote energy efficiency	384	1	5	3.68	1.062
Regularly assess and report on economic impacts to inform policy decisions	384	1	5	3.76	1.035
Composite Score	384			3.710	

Source: SPSS version 25 outputs

Table 4.14: Descriptive Statistics for Collaborative Efforts and Long-term Strategies (N = 384)

Indicator	N	Min	Max	Mean	Std. Deviation
Collaboration between government and private sector is essential	384	1	5	4.13	0.826
Create a task force dedicated to macro-financial stability during energy shocks	384	1	5	4.10	0.926
Developing a national energy strategy would help mitigate future crises	384	1	5	4.08	0.958
Promoting local production and consumption can reduce vulnerability	384	1	5	4.10	0.879
Proactive measures taken by authorities can significantly mitigate impacts	384	1	5	4.06	0.943
Composite Score	384			4.094	

Source: SPSS version 25 outputs

Support for proactive intervention is high (M = 4.114 and M = 4.112). Top priorities include public transportation enhancements (M = 4.16, SD = 0.898), renewable energy expansion (M = 4.14, SD = 0.911), anti-inflationary monetary policy (M = 4.14, SD = 0.887), targeted subsidies (M = 4.13), and MSME credit extension (M = 4.12). However, a key administrative challenge is revealed: while civic education demand is strong (M = 4.14, SD = 0.908), trust in local leadership responsiveness remains low (M = 2.89,

SD = 1.178). Sustainable recovery depends on public-private sector partnerships (M = 4.13, SD = 0.826) and specialized macro-financial task forces (M = 4.10, SD = 0.926).

5. Discussion

The empirical findings confirm that international geopolitical shocks transmit rapidly into rural Ethiopian micro-economies, primarily through fuel price escalation and supply constraints. The high agreement on fuel price inflation (M = 4.424) and household budget compression (M = 4.49) directly aligns with Cost-Push Inflation and Real Income Theories (Friedman, 1968; Mankiw, 2014). These results reinforce earlier conclusions by Tadesse et al. (2020) and Alemayehu et al. (2022), who observed that domestic price levels in Ethiopia react swiftly to global petroleum disruptions.

The enterprise-level findings—where operating overhead forces firms to consider workforce reductions (M = 4.17)—align with Mekonnen's (2021) observations on MSME vulnerability. Small enterprises in rural woredas lack financial buffers, forcing them to pass freight costs onto consumers (M = 4.08\$) or downsize operations.

A major contribution of this study is identifying the divergence between public geopolitical awareness (M = 3.714) and actual community preparedness (M = 2.784). Although residents actively deploy individual coping mechanisms, such as precautionary saving (M = 3.76) and local product substitution (M = 3.68)—consistent with behavioral economic models (Kahneman and Tversky, 1979)—institutional emergency buffers remain lacking. Furthermore, the low trust rating for local administrative responsiveness (M = 2.89) highlights governance bottlenecks that can impede crisis management. Addressing this structural weakness requires implementing macroprudential framework recommendations (Borio, 2011), combining countercyclical fiscal relief with long-term renewable energy transition (Sovacool, 2009).

6. Conclusion and Recommendations

This study evaluated the impact of the 2026 US-Iran energy crisis on Ethiopia's macro-financial stability, drawing empirical evidence from 384 stakeholders in Gomma Woreda. The investigation reveals that external geopolitical crises transmit directly to local agrarian economies through fuel price increases (M = 4.424) and supply shortages (M = 4.140), creating simultaneous pressure on household purchasing power (M = 4.126) and enterprise operations (M = 4.110). Although public awareness and behavioral adaptation are well-established, structural community preparedness remains constrained (M = 2.784), exacerbated by low trust in local governance responsiveness (M = 2.89).

Based on these findings, the following targeted interventions are recommended:

Federal Fiscal and Monetary Stabilization: The National Bank of Ethiopia and Ministry of Finance should deploy countercyclical monetary policy and targeted fuel stabilization funds to cushion imported cost-push inflation.

Targeted Micro-Enterprise Credit Facilities: Local microfinance institutions and commercial banks should extend concessionary credit lines to protect small businesses and coffee processors from liquidity squeezes and labor retrenchment.

Renewable Energy Infrastructure Investment: Regional and federal energy authorities must accelerate off-grid solar and renewable energy investments across agricultural woredas to reduce long-term dependency on imported fossil fuels.

Local Government Capacity Building: Woreda administrations should establish emergency buffer funds, launch transparent monitoring bodies, and rebuild community trust through regular public forums.

Future Research: Longitudinal studies should evaluate post-crisis recovery trajectories and analyze sector-specific resilience across diverse rural woredas in Ethiopia.

Declarations

Author Contribution

All parts of this paper is undertaken by the corresponding Author

Acknowledgement

First and foremost, I express my deepest praise and gratitude to Almighty God for providing me with the strength, wisdom, patience, and guidance necessary to successfully execute and complete this research project. I would like to extend my sincere gratitude to Jimma University and the Department of Accounting and Finance for offering the academic platform, resources, and institutional environment that made this study possible. My profound appreciation goes to the local government authorities, administrative officers, and department heads in Gomma Woreda and Jimma Zone for granting permission to conduct field data collection and providing key context regarding local market dynamics. Special thanks go to the 384 participants comprising local households, business owners, coffee processing operators, and woreda officials who generously set aside their time to complete the structured questionnaires and participate in key informant interviews. Their openness and active engagement provided the essential empirical foundation upon which Chapter Four's data analysis and interpretations were built. I also wish to extend my appreciation to my research peers, academic colleagues, and friends for their constructive feedback, technical suggestions regarding statistical analyses in SPSS, and continuous moral support throughout this research journey. Finally, my deepest love, appreciation, and gratitude go to my family for their unwavering sacrifices, patience, understanding, and constant encouragement during the long hours of study and writing. This achievement would not have been possible without their endless support.

References

1. African Development Bank. 2021. Ethiopia Economic Outlook: Responding to Global Shocks. AfDB Group, Abidjan, Côte d'Ivoire. Pp. 45–60.
2. Alemayehu Girmay, Chala Alemayehu and Terefe Habtamu. 2022. Vulnerability of Ethiopian commodity markets to global energy price volatility. *Ethiopian Journal of Economics*, 31(1): 45–72.
3. Baumeister, C. and Kilian, L. 2016. Forty years of oil price fluctuations: Why the price of oil changes and how it affects the economy. *Journal of Economic Perspectives*, 30(1): 67–90.
4. Berhanu Kedir. 2018. Community perception and economic adaptation to market shocks in rural Oromia, Ethiopia. *East African Journal of Sciences*, 12(2): 101–114.
5. Blanchard, O. and Leigh, D. 2013. Growth forecast errors and fiscal multipliers. *American Economic Review*, 103(3): 117–120.
6. Borio, C. 2011. Rediscovering the macro-prudential roots of financial regulation. *Journal of Financial Stability*, 7(1): 284–297.
7. Ethiopian Economic Association. 2022. Report on Energy Consumption and Agricultural Productivity in Rural Ethiopia. EEA Policy Bulletin No. 4, Addis Ababa, Ethiopia. Pp. 12–35.
8. Friedman, M. 1968. The role of monetary policy. *American Economic Review*, 58(1): 1–17.
9. Kahneman, D. and Tversky, A. 1979. Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2): 263–291.
10. Katz, M. 2021. Geopolitics of Middle Eastern oil supply and market disruptions. *Energy Strategy Reviews*, 35: 100650.
11. Kilian, L. 2009. Not all oil price shocks are alike: Disentangling demand and supply shocks in the crude oil market. *American Economic Review*, 99(3): 1053–1069.
12. Mankiw, N.G. 2014. *Principles of Economics*. 7th edition. Cengage Learning, Stamford, Connecticut, USA. Pp. 315–340.
13. Mekonnen Wassu. 2021. Impact of energy cost spikes on micro and small enterprise performance in Southwestern Ethiopia. *East African Journal of Sciences*, 15(1): 55–70.
14. Pahl-Wostl, C., Holtz, G., Kastens, B. and Knieper, C. 2010. Analyzing complex water governance regimes: The management and transition framework. *Environmental Science & Policy*, 13(7): 571–581.
15. Rogers, R.W. 1983. Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. *Social Psychophysiology*, 153–176.
16. Sovacool, B.K. 2009. The importance of open and resilient energy systems. *Energy Policy*, 37(4): 1521–1523.
17. Tadesse Merga, Terefe Habtamu and Derso Eshetu. 2020. Macroeconomic vulnerability and household welfare under energy price shocks in Ethiopia. *African Development Review*, 32(3): 410–424.
18. World Bank. 2020. Ethiopia Economic Update: Strengthening Macro-Financial Stability under Global Uncertainty. World Bank Group, Washington D.C., USA. Pp. 30–55.